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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,025	02/04/2002	Mark Daniel Dvorak	H0002414	4128

128 7590 04/26/2004

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EXAMINER

COX, CASSANDRA F

ART UNIT PAPER NUMBER

2816

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/067,025	DVORAK, MARK DANIEL	
	Examiner	Art Unit	
	Cassandra Cox	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8,10,11,13-15,18,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 3,5-7,9,12,16,17,19 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>12/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-2, 4, 10, 13-15, and 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 8, 10-11, 13-15, 18 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fullerton et al. (U.S. Patent No. 5,995,534).

In reference to claim 1, Fullerton discloses in Figure 10, a modulated ultra wideband pulse generation system, comprising: a pulse waveform generator (1008) operable to generate an on-off pulse waveform (1014); a modulating circuit (1016) operable to receive a modulating signal (1204) and to modulate the on-off pulse waveform (1014) in response to the modulating signal (1204; see column 14, lines 8-10) to produce an ultrawideband radio frequency pulse (see column 14, lines 24-25). The same applies to claim 13.

In reference to claim 2, Fullerton discloses in Figure 10 the system further comprising an antenna (1030).

In reference to claim 4, the pulse waveform generator circuit (1008) generates a pseudorandom waveform (wherein the waveform generator can be designed to generate any suitable waveform). The same applies to claim 15.

In reference to claim 8, Fullerton discloses in column 1, lines 30-34 that the modulating circuit comprises a pulse position modulator operable to selectively delay the on-off pulse in response to a modulating signal (this is seen to be the inherent operation of any pulse position modulator). The same applies to claim 18. The same also applies to claims 10-11 and 20-21 wherein Fullerton discloses in column 3, lines 63-67 that multiple frequency modulation techniques may be used to modulate the signal.

In reference to claim 14, Fullerton discloses in Figure 10 the step of generating a modulating signal (this is done by generator 1008).

Allowable Subject Matter

4. Claims 3, 5-7, 9, 12, 16-17, 19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Claim 3 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the circuit further comprises a capacitor (230) placed between the antenna (231) and the modulating circuit in combination with the rest of the limitations of the base claims and any intervening claims. Claims 5-7 and 16-17 would be allowable because the closest prior art of record fails to disclose a

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circuit as shown in Figure 2 wherein the system further comprises a variable bandwidth circuit (215) operable to change the bandwidth of the ultra wideband pulse in combination with the rest of the limitations of the base claims and any intervening claims. Claims 9 and 19 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the pulse position modulator (208) comprises a resistor (210) capacitor (211) lowpass filter having a time constant that is varied in response to the modulating signal (213) in combination with the rest of the limitations of the base claims and any intervening claims. Claims 12 and 22 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the phase modulator (225) comprises an exclusive or (XOR) gate (227) having the on-off pulse waveform as one input, a modulating signal (226) as a second input, and a modulated signal as an output in combination with the rest of the limitations of the base claims and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 571-272-1741. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM and on alternate Fridays from 8:00 AM to 4:30 PM.

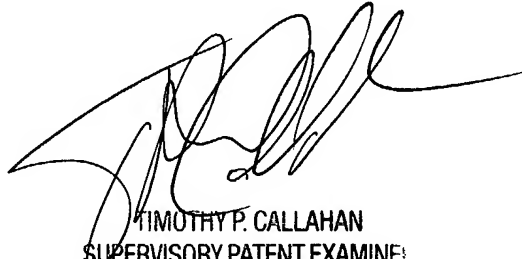
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

CC
cc
April 16, 2004



TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800